

## CLAIMS

What is claimed is:

1. A tread plate comprising:

5 a. a plate having opposing side edges and a first connecting edge and a second connecting edge extending between said side edges, said first connecting edge including male connector means and said second connecting edge including female connector means;

10 b. a plurality of ribs protruding from said plate, said ribs extending substantially between said opposing side edges and being arranged in spaced relation across said plate to define tread channels therebetween; and,

c. reinforcement means integrally formed within said plate, said reinforcement means extending substantially between said opposing side edges and including a fastening receiver adjacent each side edge.

2. A tread plate as in claim 1 in which said male connector means comprises a flange.

15 3. A tread plate as in claim 2 in which said flange is v-shaped in cross-section, including a pair diverging wing portions.

4. A tread plate as in claim 3 in which said wing portions terminate on one side of a respective said rib, and in which fillets are provided on the other side of said rib.

5. A tread plate as in claim 1 in which said female connector means comprises a recess.
6. A tread plate as in claim 5 in which said recess includes a base, an open top portion, and converging walls extending between said base and said open top portion.
7. A tread plate as in claim 6 in which said recess is located within one side of a female connector head and in which fillets are provided on the other side of said female connector head.
8. A tread plate as in claim 1 in which said reinforcement means comprises a tube, and further including at least two rail bolts passing inwardly into a respective said fastening receiver.
9. A tread plate as in claim 8 in which said fastening receiver comprises an open end, sized to be engaged by a threaded end of a respective said rail bolt.
10. A tread plate as in claim 1 including a plurality of apertures within said tread channels.
11. A tread plate as in claim 10 in which said apertures comprise elongated slots.
12. A tread plate as in claim 1 manufactured from extruded aluminum.
13. A tread plate as in claim 1 in which said reinforcement means is adjacent said male connector means, and further including a fillet between said reinforcement means and said male connector

means.

14. A tread plate as in claim 1 in which said ribs extend both from an upper side of said plate and from a lower side of said plate.

15. A tread plate as in claim 14 in which said ribs have an outer edge, and further including a plurality of transverse notches in said outer edge.

16. A walk ramp, comprising:

a. first and second tread plates, each said tread plate comprising: a plate having opposing side edges and a first connecting edge and a second connecting edge extending between said side edges, said first connecting edge including male connector means and said second connecting edge including female connector means; a plurality of ribs protruding from said plate, said ribs extending substantially between said opposing side edges and being arranged in spaced relation across said plate to define tread channels therebetween; reinforcement means integrally formed with said plate, said reinforcement means extending substantially between said opposing side edges and including a fastening receiver adjacent each side edge, said male connector means of said first tread plate being slidably engaged with said female connector means of said second tread plate;

b. first and second side rails, said rails having inwardly facing channels sized to accept said opposing side edges of said first and second tread plates; and,

c. means for connecting said first and second tread plates to said first and second side

rails.

17. A walk ramp as in claim 16 in which said means for connecting said first and second tread plates to said first and second side rails comprises a plurality of rail bolts passing inwardly through said side rails and threadably engaging said reinforcement means.

5 18. A walk ramp as in claim 17 further including a plurality of channel bolts and respective nuts, said bolts passing through said channels and said opposing side edges of said first and second tread plates.

19. A walk ramp as in claim 16 further including an apron attached to an upper end of each of said side rails.

10 20. A walk ramp as in claim 18 further including a skid plate attached to a lower end of each of said side rails, in which said channel bolts and respective nuts secure said skid plate to said side rails.

21. A walk ramp as in claim 16 in which said first and second tread plates and said first and second side rails are formed from extruded aluminum.

15 22. A walk ramp as in claim 16 in which said first and second tread plates include at least one gripping aperture, sized and configured for hand gripping said ramp.